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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,678	10/15/2001	Christopher W. Gabrys	IG2210US	3495

7590

07/15/2003

J. Michael Neary
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EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/977,678	GABRYS, CHRISTOPHER W.	
	Examiner	Art Unit	
	Dang D Le	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 19-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-18 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0202</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I, claims 1-18 in Paper No. 2/19/03 is acknowledged. The traversal is on the ground(s) that "these 'separate utilities' are not separate utilities at all". This is not found persuasive because claims 19 and 20 of group II, for example, do not recite any features contained in claims 1-18. Claims 37 and 38 of group IV, for example, clearly recite a magnetic bearing directed to the embodiment of Figure 13, while Figure 12 shows another embodiment directed to claims 1-18. Claim 41 of group III does not require any bearing as shown in Figure 4. In fact, the four groups in the present application do not recite the same feature and the search for one group is not required for the other groups.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 19-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected groups II-IV, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 2/19/03.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

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It does not identify the mailing or post office address of each inventor. A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Claim Objections

4. Claim 8 is objected to because of the following informalities: claim 8, last line, replace "intrusions" with – protrusions --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 5-7, and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchiyama.

Regarding claim 1, Uchiyama shows an inductor alternator flywheel system (Figures 1(a) and 1(b)) comprising:

- A rotatable member (4) mounted on bearings for rotation about an axis, said member including a flywheel rotor with a hollow center and an inwardly facing radial surface forming a plurality of protrusions (9) extending radially inwardly;
- A non-rotating member (17) having a source of homopolar flux (F), said flux creating magnetic poles in said protrusions;
- At least one cylinder (15) having an outer radial surface, said cylinder being mounted concentric with respect to said rotor and spaced apart radially from

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said protrusions such that an armature air gap between said protrusions and said outer surface, said cylinder being constructed of substantially high permeability material (iron); and

- At least one armature coil (16) mounted within said air gap such that said flux (F) induces an alternating voltage in said armature coil when said rotor rotates about said axis.

Regarding claims 2, 5-7, and 13-17, it is noted that Uchiyama also shows all of the limitations of the claimed invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama in view of Tanaka.

Regarding claim 8, Uchiyama show all of the limitations of the claimed invention except for said liner being constructed from multiple axial layers that reduce eddy currents in said intrusions.

Tanaka shows the liner (17) being constructed from multiple axial layers that reduce eddy currents in said intrusions for the purpose of reducing heat.

Since Uchiyama and Tanaka are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to construct said liner from multiple axial layers that reduce eddy currents in said intrusions as taught by Tanaka for the purpose discussed above.

Regarding claims 9 and 10, it is noted that Tanaka also shows all of the limitations of the claimed invention.

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama in view of Murakami et al.

Regarding claim 11, Uchiyama show all of the limitations of the claimed invention except for an electromagnet mounted with respect to said flywheel rotor such that said electromagnet, when energized, lifts a majority of the weight of said flywheel rotor from said mechanical bearings.

Murakami et al. show an electromagnet mounted with respect to said flywheel rotor such that said electromagnet, when energized, lifts a majority of the weight of said flywheel rotor from said mechanical bearings for the purpose of reducing wear.

Since Uchiyama and Murakami et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount an electromagnet with respect to said flywheel rotor such that said electromagnet, when energized, lifts a majority of the weight of said

flywheel rotor from said mechanical bearings as taught by Murakami et al. for the purpose discussed above.

Regarding claim 12, it is noted that Murakami et al. also show all of the limitations of the claimed invention.

10. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama in view of Hull et al.

Regarding claim 18, Uchiyama show all of the limitations of the claimed invention except for said central shaft being constructed of substantially high permeability material.

Hull et al. show said central shaft being constructed of substantially high permeability material for the purpose of increasing flux flow.

Since Uchiyama and Hull et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make said central shaft of substantially high permeability material as taught by Hull et al. for the purpose discussed above.

Allowable Subject Matter

11. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Information on How to Contact USPTO

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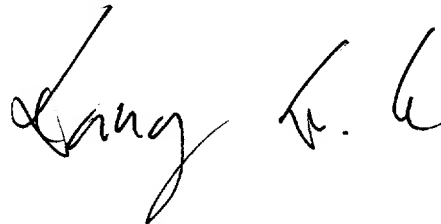
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

July 12, 2003

A handwritten signature in cursive script, appearing to read "Dang D. Le".

**DANGLE
PRIMARY EXAMINER**